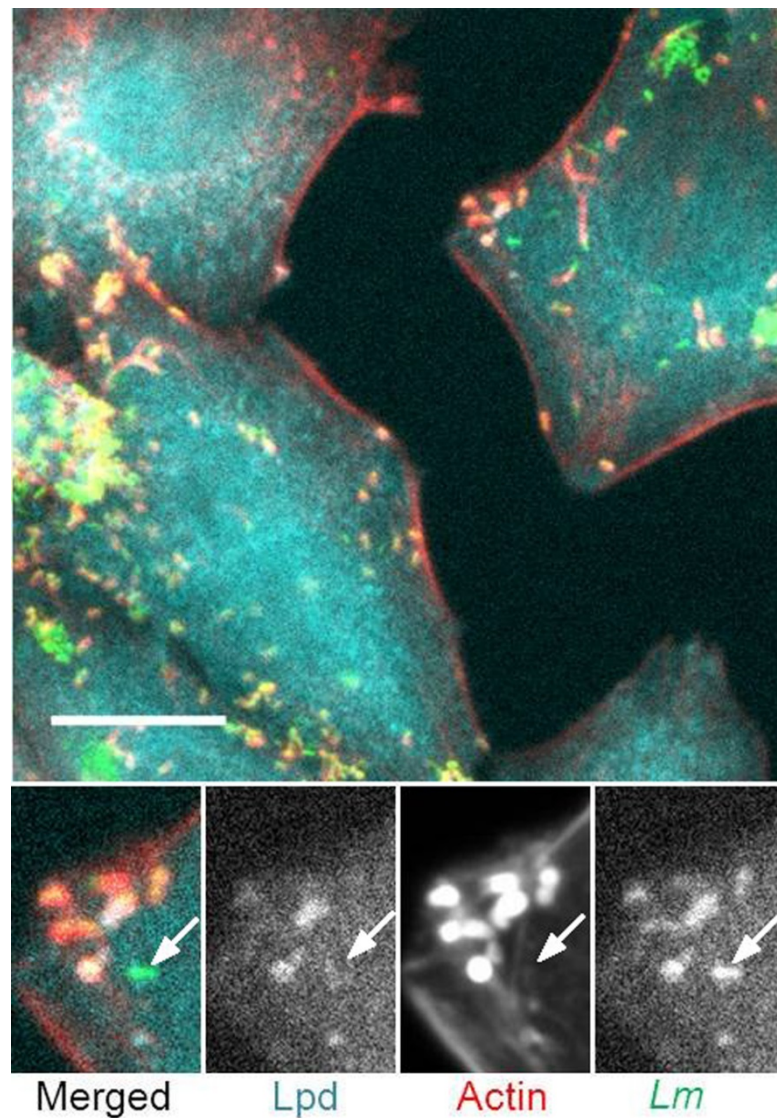


**Table S1**

<b>Name</b>	<b>Sequence (5'→3')</b>
actAKO1-F	AGATAAGAATTCCGGTATTTTATTGCTCC
actAKO1-R	CGATAAGGATCCGTTTAATCCCACCTTATAC
actAKO2-F	CGTGTAGGATCCAATAATTAACACACAG
actAKO2-R	ATATCTGGATCCTGCGGTAAAATTAT
actAEVHBKO1-F	CTGAGAATTCACCAAGATACGAACTGCAC
actAEVHBKO1-R	ATCAGGATCCCGAAGCATTTACCTCTTCAC
actAEVHBKO2-F	ATAAGGATCCAGAGGCGGTAGACCAACATC
actAEVHBKO2-R	ATTGAAGCTTCCAGCAGAACGATTTTTTCC
LPD380-F	TTACTCCTCGAGATGAACAAAGAAGTCCTCTTG
LPD535-F	TTACTCCTCGAGATGAAATCGGGATCCAGTTCT
LPD869-R	TTACTCGAATTCAAACCTGGCTGGCTATCTGCTT
PH-SDM-K-F	GATGGCAAGAAGTCCTGGGCCAAGCGTTATTTCTC
PH-SDM-K-R	GAGAAAATAACGCTTGGCCCAGGACTTCTTGCCATC
PH-SDM-R-F	GAAGTCCTGGGCCAAGGCCTATTTTCTCTTGCGAGC
PH-SDM-R-R	GCTCGCAAGAGAAAATAGGCCTTGGCCCAGGACTT

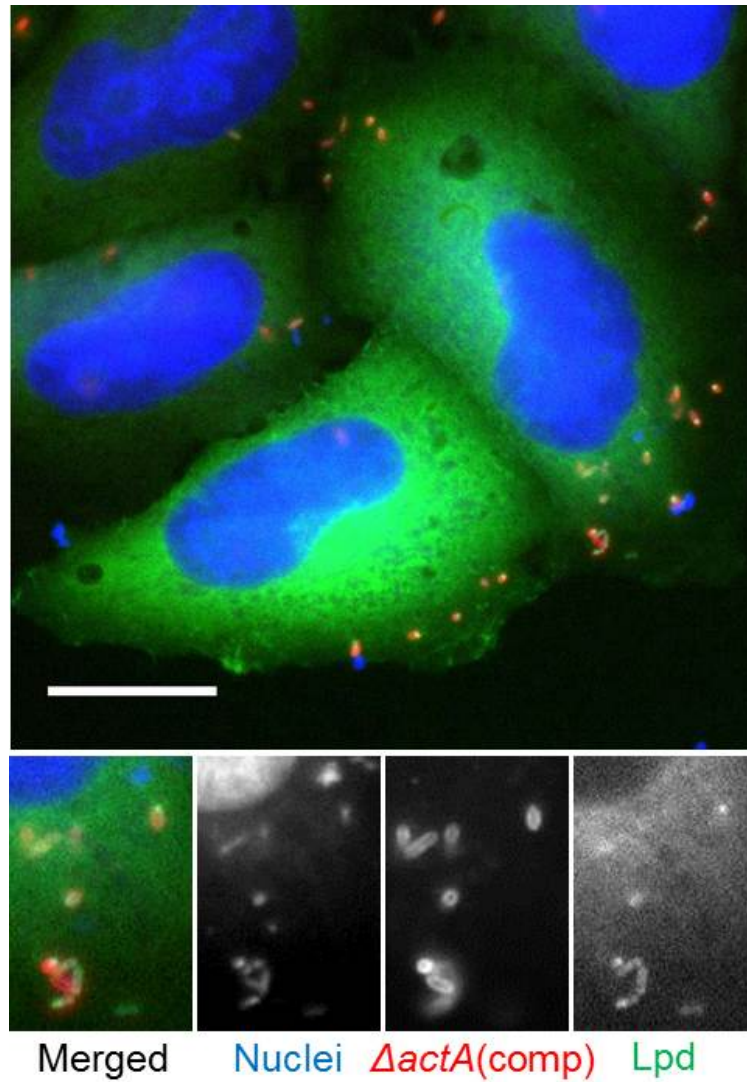
**Primer list.**

Fig. S1



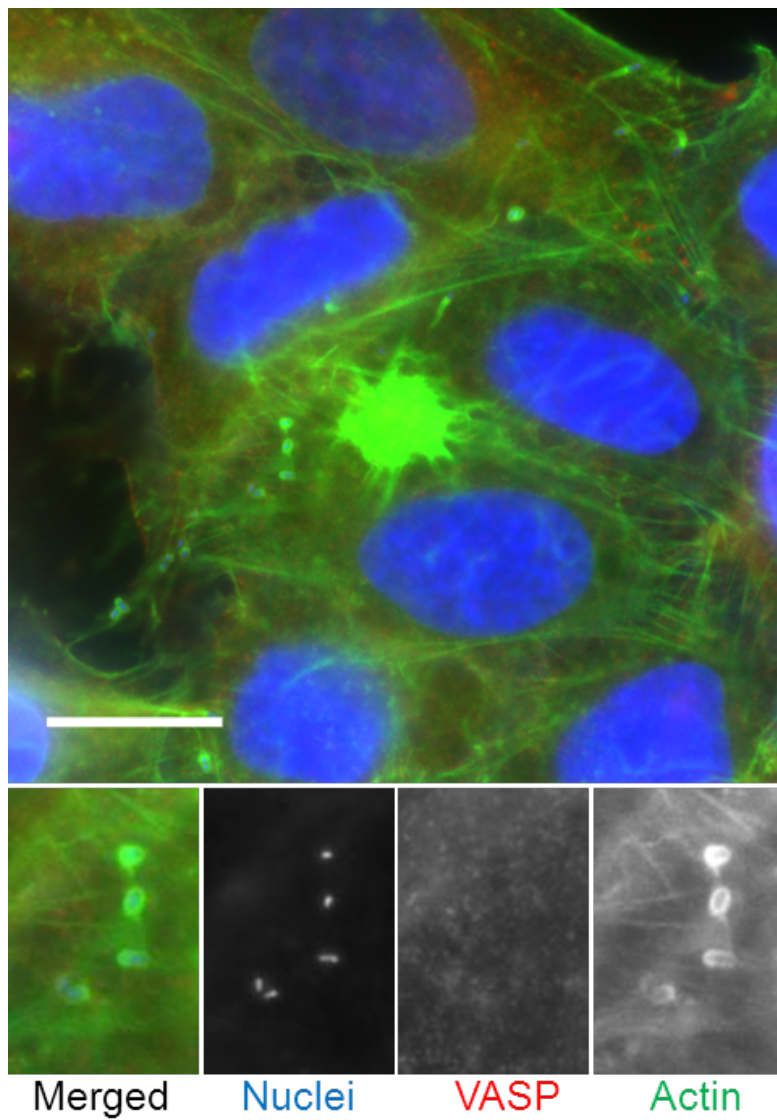
**Ab-stained Lpd did not co-localise with *L. monocytogenes* not recruiting actin 6 hr post-infection of HeLa cells.** HeLa cells were infected with *L. monocytogenes* InlAm(pNF8) (green). Actin and Lpd were labelled with Phalloidin-Atto594 (red) and anti-Lpd-Cy5 (Cyan) Ab respectively. Arrows pointed out a bacterium without actin or Lpd association. Scale bar=20 $\mu$ m.

Fig. S2



**Lpd co-localised with the complemented *L. monocytogenes*  $\Delta actA$  strain in HeLa cells 6 hr post infection.** HeLa cells were transfected with pEGFP-C1hLpd (green) and infected with *L. monocytogenes*  $\Delta actA$  strain harbouring the pUNK1-actA plasmid (red) and fixed at 6 hr post infection. Bacteria and HeLa cell nuclei were stained with DAPI. Scale bar=20  $\mu m$ .

Fig. S3



The *L. monocytogenes* strain  $\Delta actA^{EVHB}$  could no longer bind VASP hence forming thinner and shorter tails in HeLa cells 6 hr post infection. Actin and VASP were labelled with phalloidin-GFP and anti-VASP Ab. Bacteria and HeLa cell nuclei were stained with DAPI. Scale bar=20  $\mu$  m.

#### **Video S1**

**The actin-based intracellular movement of *L. monocytogenes* in HeLa cells 6 hr post infection 50X speed.** Camera captured the signal from labelled F-actin.

#### **Video S2**

**The actin-based intracellular movement of *L. monocytogenes* in HeLa cells over-expressing Lpd 6 hr post infection 50X speed.** HeLa cells were transfected with pEGFP-C1hLPD 24 hr before infection. Camera captured the signal from labelled F-actin.

#### **Video S3**

**The actin-based intracellular movement of *L. monocytogenes* in HeLa cells depleted of Lpd expression 6 hr post infection 50X speed.** HeLa cells were transfected with Lpd-specific RAPH1 siRNAs 48 hr before infection. Camera captured the signal from labelled F-actin.